

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
7 July 2005 (07.07.2005)

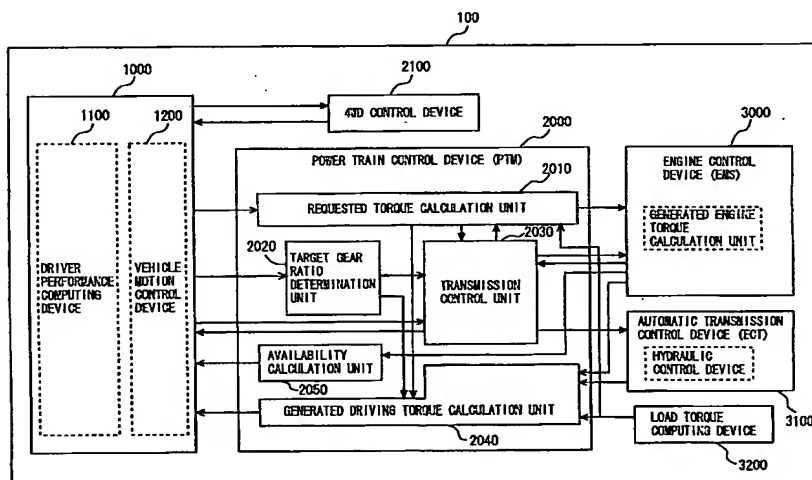
PCT

(10) International Publication Number  
**WO 2005/062274 A2**

- (51) International Patent Classification<sup>7</sup>: **G08G**
- (21) International Application Number: **PCT/JP2004/018225**
- (22) International Filing Date:  
30 November 2004 (30.11.2004)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:  
2003-423569 19 December 2003 (19.12.2003) JP
- (71) Applicant (for all designated States except US): **TOYOTA JIDOSHA KABUSHIKI KAISHA [JP/JP]**; 1, Toyota-cho, Toyota-shi, Aichi, 4718571 (JP).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): **TAKAMATSU, Hideki [JP/JP]**; c/o TOYOTA JIDOSHA KABUSHIKI KAISHA, 1, Toyota-cho, Toyota-shi, Aichi, 4718571 (JP). **KONDO, Masami [JP/JP]**; c/o TOYOTA JIDOSHA KABUSHIKI KAISHA, 1, Toyota-cho, Toyota-shi, Aichi, 4718571 (JP). **MIZUNO, Hiroshi [JP/JP]**; c/o TOYOTA JIDOSHA KABUSHIKI KAISHA, 1, Toyota-cho, Toyota-shi, Aichi, 4718571 (JP).
- (74) Agents: **FUKAMI, Hisao et al.**; Fukami Patent Office, Mitsui Sumitomo Bank Minamimorimachi Bldg., 1-29, Minamimorimachi 2-chome, Kita-ku, Osaka-shi, Osaka 5300054 (JP).
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GN, GQ, GW, ML, MR, NE, SN, TD, TG).
- Published:  
— without international search report and to be republished upon receipt of that report

[Continued on next page]

(54) Title: DRIVING SYSTEM CONTROL DEVICE IN VEHICLE INTEGRATED CONTROL SYSTEM



(57) Abstract: A power train control device (2000) includes a requested torque calculation unit (2010) that calculates requested torque for an engine based on a parameter input from an upper level computing device (1000), a transmission gear ratio determination unit (2020) that determines a transmission gear ratio, a transmission control unit (2030) that calculates output shaft torque and gearshift time of an automatic transmission at the time of gearshift and outputs a control parameter to an automatic transmission control device (3100), a generated driving torque calculation unit (2040) that calculates driving torque generated in the power train, taking account of the load torque of the engine input from a load torque computing device (3200), and outputs the calculated driving torque to the upper level computing device (1000), and an availability calculation unit (2050) that calculates and outputs availability of the driving torque to the upper level computing device (1000).



---

*For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*